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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,615	08/06/2001	Shawn L. King	1558.00001	1426

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Wm. A. VanSanten
WOOD, PHILLIPS, VAN SANTEN, CLARK & MORTIMER
Suite 3800
500 West Madison Street
Chicago, IL 60661

EXAMINER

HAYES, JOHN W

ART UNIT	PAPER NUMBER
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3621

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,615

Applicant(s)

KING ET AL.

Examiner

John W Hayes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/02, 3/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houser et al, U.S. Patent No. 5,606,609 in view of Henderson et al, U.S. Patent Application Publication No. US 2002/0188845 A1.

As per **Claims 1 and 10**, Houser et al disclose an electronic document management system for verifying the contents of an electronic document exchanged through a network and comprising variable data input by a user, said system comprising:

(a) a data capturing component for capturing data defining an electronic document, wherein said data comprises at least said variable data, and forwarding said data for storage (Figure 1; Col. 7, lines 15-28; Col. 7, lines 60-65; Col. 11, lines 52-61; Col. 15, lines 20-25);

(b) a document digest generator for generating a digest from said defined electronic document by applying a secure algorithm thereto, whereby said digest is uniquely associated with said defined electronic document, and forwarding said digest for storage in association with said defined electronic document (Col. 4, lines 10-33; Col. 7, lines 60-65; Col. 10, lines 60-65; Col. 12, lines 40-54; Col. 14, lines 10-20 and 30-35; Col. 15, lines 20-25);

(c) a barcode generator for generating a barcode from said generated digest whereby said barcode uniquely identifies said defined electronic document and the contents thereof (Col. 16, lines 62-67; Col. 17, lines 1-14; Col. 18 line 57-Col. 19 line 8; Figure 8);

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(d) a document forwarding component for forwarding said defined electronic document with said barcode added thereto for use by a user (Col. 7 line 63-Col. 8 line 10; Col. 8, lines 35-40; Col. 15, lines 20-25;

(e) a document receiving component for receiving from a user a signed electronic document comprising variable data and a barcode (Col. 4, lines 20-34; Col. 7 line 60-Col. 8 line 2; Col. 15, lines 25-28); and,

(f) a barcode verification component for determining the validity of said barcode of said received electronic document wherein a digest component of said barcode is compared to said stored digest associated with said defined electronic document (Col. 4, lines 20-34; Col. 11, lines 45-50; Col. 15, lines 37-45; Col. 16, lines 2-38; Col. 21, lines 37-48).

Houser et al disclose comparing a document digest component embedded in a security object associated with the document with a document digest stored in memory (Col. 16, lines 15-22), and further disclose that a watermark is generated based upon the document digest and included along with the document (Col. 16 line 55-Col. 17 line 14) ,however, fail to explicitly disclose generating a barcode from the document digest and including the barcode on the electronic document. Houser et al does disclose that the generated watermark may be a barcode or other glyph that includes the document digest (Col. 18 line 62-Col. 19 line 10). Henderson et al disclose a system for validating value-bearing documents and further teach that it is known to generate a barcode based upon information such as a hash or digest of specific information and use the barcode in validating the information after it has been received (paragraph 0046). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the system of Houser et al and include generating a barcode based upon a document hash or digest and associate or include the barcode along with the document to facilitate validation of the document when it is received by another party. Henderson et al provide motivation by indicating that converting the hash or digest information into barcode format expedites the validation procedure by a validation module (0046).

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As per **Claims 2 and 12**, Houser et al further disclose wherein a unique document number is generated for said defined electronic document, said document number is stored with said captured data and said digest is generated from said defined electronic document and said document number (Figure 9B; Col. 4, lines 34-46; Col. 12, lines 45-54).

As per **Claims 3 and 11**, Houser et al disclose wherein the user inputs variable data into a pre-determined electronic form template and the data defining the electronic document comprises variable data and the pre-determined electronic form template. Houser et al disclose that the data captured includes data in an electronic document created using any conventional application, for example, Word for Windows, Amipro, Powerpoint, Excel, Microsoft Windows Paintbrush, among numerous others and that the document may be any type of document (Col. 7, lines 15-28; Col. 11, lines 52-61). Houser et al further disclose an example of an expense report using Excel that includes both variable data as well as a pre-determined electronic form template (Figure 7A-7B).

As per **Claims 4 and 13**, Houser et al fail to explicitly disclose wherein a unique document revision number is generated for said defined electronic document, said document revision number is stored with said captured data and said digest is generated from said defined electronic document and said document and revision numbers. However, Houser et al does disclose that the content of the security object may vary depending on the information required by the features provided. The document digest may include document file name, document file path, the number of characters per page or in the document, the date and time that the document was saved as well as others (Col. 12, lines 40-54). Although Houser et al fails to specifically disclose a document revision number, examiner submits that this would have been obvious to one having ordinary skill in the art at the time of applicant's invention. It was well known that documents were frequently revised and included revision information in order to determine the current version of the document. Including this information in the document digest, or any other information related to the document would have been obvious to one having ordinary skill in the art in order to preserve this information when validating that the document was authentic.

As per **Claims 5 and 14**, Houser et al further disclose including bar codes on the document and further disclose that the document digest may include information such as the number of characters per page or in the document or the number of pages in the document (Col. 12, lines 45-54), however, fail to explicitly disclose wherein a unique barcode for each page of said defined electronic document is generated by said barcode generator from said digest, said document and revision numbers and paging details for said defined electronic document and each said unique barcode is added to the specific page of said defined electronic document associated therewith, wherein the resulting barcoded defined electronic document is forwarded by said document forwarding component. However, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the method of Houser et al and include unique bar codes on each page of a document based on the document information on each specific page in order to provide additional security measures that would be difficult to defeat.

3. Claims 6-9 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houser et al, U.S. Patent No. 5,606,609 and Henderson et al, U.S. Patent Application Publication No. US 2002/0188845 A1 as applied above, and further in view of Adobe Acrobat 3.0 Tutorial, published 1996, hereinafter referred to as Adobe.

As per **Claims 6 and 15**, Henderson et al disclose converting a message into a bar code PDF format, however, Houser et al and Henderson et al fail to specifically disclose a document image generator for generating an electronic image of said barcoded defined electronic document, wherein said document forwarding component forwards said electronic image. Adobe discloses a document image generator for generating an electronic image (such as a PDF) of a defined electronic document (Pages 2-7, capturing and cataloging a PDF). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the system of Houser et al and Henderson et al and include the

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ability to generate a document image from the document in view of Adobe since this was a well known feature for conveniently transmitting electronic forms of documents from one party to another.

As per Claims 7 and 18, Houser et al fails to disclose wherein the received document has been hand signed and faxed by the user. However, examiner takes Official Notice that hand-signing and faxing documents was well known at the time of applicant's claimed invention and it would have been obvious to hand sign and fax a document in order to verify that somebody has approved the document or at least has read its contents signified by the signature.

As per Claims 8 and 16, Houser et al further disclose digital exchange key generator for generating a unique digital exchange key associated with said defined electronic document, said generated unique digital exchange key being generated by applying said secure algorithm to said electronic image, and forwarding said digital exchange key for storage (Col. 4, lines 10-33; Col. 7, lines 60-65; Col. 10, lines 60-65; Col. 12, lines 40-54; Col. 14, lines 10-20 and 30-35; Col. 15, lines 20-25; Col. 16, lines 15-22).

As per Claim 9, Houser et al further disclose wherein said electronic document received by said document receiving component comprises a digital signature and said system further comprises a digital signature authentication component for authenticating said digital signature and a digital exchange key verification component for determining the validity of said received electronic document, wherein said digital exchange key verification component determines a digital exchange key by applying said secure algorithm to said received electronic document and comparing said determined digital exchange key to said stored unique digital exchange key associated with said defined electronic document (Col. 4, lines 10-33; Col. 7, lines 60-65; Col. 10, lines 60-65; Col. 12, lines 40-54; Col. 14, lines 10-20 and 30-35; Col. 15, lines 20-25; Col. 16, lines 15-22).

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As per **Claim 17**, Houser et al further disclose whereby said electronic document received by said document receiving component comprises a digital signature, said method further comprising:

(a) authenticating said digital signature (Col. 7, lines 45-52; Col. 8, lines 8-12; Col. 12, lines 55-58; Col. 14, lines 43-46; Col. 15, lines 1-4 and 37-42; Col. 16, lines 30-34; Col. 21, lines 5-21); and,

(b) determining the validity of said received electronic document by applying said secure algorithm to said received electronic document and comparing the resulting determined digital exchange key to said stored unique digital exchange key associated with said defined electronic document (Col. 4, lines 10-33; Col. 10, lines 60-65; Col. 12, lines 40-54; Col. 14, lines 10-20 and 30-35; Col. 15, lines 20-25; Col. 16, lines 15-22).

Conclusion

4. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that the applicant, in preparing the responses, fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Zhao et al disclose digital authentication with analog documents and teach techniques for protecting the security of digital representations, and of analog forms made from them. Zhao teaches scanning analog forms and outputting to OCR software and generating a digest
- Smith discloses a method for authenticating documents and the originator or signer of the document
- Baxter discloses a method for collecting and authenticating electronic signatures and documents signed thereby using digests

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- Poore et al disclose a transaction card and teach that it is known to store a message digest on a barcode
- Kocher discloses a method for confirming, timestamping and archiving documents using FAX machines
- Carr et al disclose printing and validating of self validating security documents.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hayes whose telephone number is (703)306-5447. The examiner can normally be reached Monday through Friday from 5:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Trammell, can be reached on (703) 305-9768.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

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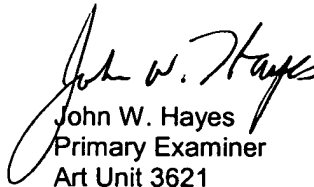
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Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA, 7th floor receptionist.


John W. Hayes
Primary Examiner
Art Unit 3621

September 1, 2004